

THE OIT TIMES

"Turning Industry Visions into Reality"



ISSUE TWO

SPRING 1998

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national labs

OIT's many information products and services offer industry immediate assistance

OIT's R&D portfolio offers American industries many opportunities to boost their *long-term* competitive position and energy and materials efficiency. But OIT also offers a wide variety of information-oriented products and services that can benefit industry *right now*.

"Companies of all kinds can use these resources to assess their operations, benchmark performance relative to industry averages, or learn about and initiate changes that are saving money for similar operations," explained Denise Swink, DOE's Deputy Assistant Secretary for Industrial Technologies. "As a knowledgeable but impartial expert in the industries we serve, OIT is in a unique position to gather up-to-the-minute information from diverse, often competing sources, analyze it, and present it in a practical and eminently usable way."

Cost saving information a few clicks away

Making it even more valuable, she notes, is the cost of these OIT resources. "All of the resources we offer are available at no cost to American

companies—no matter what their size, or whether or not they are currently partnering with us," said Swink. "And, with the power of the Internet, our industrial customers can start benefitting from some of them literally within minutes of reading this article."

A new catalog describing many of these products and services is currently in production, and will be available later this year. But as a special service to our readers, we have decided to highlight a few of these valuable resources in this issue of the *OIT Times*.

The OIT **Industrial Projects Locator—or IPLocator**—is a user-friendly electronic database of unprecedented scope that provides useful information about more than 8,000 current and recent R&D projects throughout the Federal Government. It describes cutting-edge technologies under development in DOE's own

national lab network, other federal labs, and thousands of public/private sector R&D partnership efforts. It is a truly unique R&D database that cuts across the work of numerous federal agencies and is available to industry and the public at no cost.

Useful new industrial database now on web

"People know where to go if they need information on automotive R&D projects or computer R&D projects sponsored or conducted by the Federal Government. But industrial R&D has so many diverse applications that it's long been a challenge to find what you need," said OIT's IPLocator Project Manager Jim Quinn. "For example, a combustion technology R&D project sponsored by one government agency in one industry might have applications that could improve energy efficiency in numerous other industries as well. The IPLocator is of such scope that it allows companies to find out about and benefit from a wider range of ongoing R&D activities than ever before," said Quinn.

Using index or key word searches, users can quickly find R&D project abstracts, along with funding information, points of contact and a discussion of cross-industry applicability. The database is available immediately at OIT's website—www.oit.doe.gov—as well as in CD-ROM or diskette by calling 800-830-2258.

You've probably heard about the OIT Industrial Assessment Center (IAC) program. It's had considerable success in helping small- and medium-sized businesses boost their productivity and energy efficiency through operating changes. Now the results of more than 7,600 audits—grouped by SIC code for proprietary reasons—are available through the **IAC Assessment Database**. Plant operators can find out about energy-saving and waste-reducing recommendations that have been made to similar plants in their industry. The IAC database also provides information on the cost of implementation and any savings realized. In addition, the database includes training manuals and a "self-assessment" workbook that can help companies

(continued on page 8)



Quarterly Highlights

Awards

Deputy Assistant Secretary for Industrial Technologies Denise Swink received the **North American Die Casting Association's President's Award** at the International Die Casting Expo in Minneapolis, MN in November. The President's Award is presented to groups or individuals whose contributions have helped to advance NADCA and the die casting industry.

OIT's website (<http://www.oit.doe.gov>) has been chosen a "select site" by the editors of the **Dow Jones Business Directory**. The directory provides a guide to "high-quality, business websites" and supplies readers with a select listing of sites that provide reliable business information. Dow Jones described the OIT site as providing, "exceptional value to our readers."

Hank Kenchington, OIT aluminum industry team leader, together with co-authors John Green of the Aluminum Assoc., and Jack Eisenhower of Energetics, Inc., received the **JOM "Paper of the Year Award"** for an article they co-authored titled "Technology Roadmap for the U.S. Aluminum Industry." The award recognizes "the most notable light metals paper published in Journal of Metals (JOM) during 1997."

Renewable Bioproducts: New Vision Released



The American agricultural, forestry and chemical communities, with the help of OIT's **Agriculture Team** and other federal partners, have created a strategic vision that aims for greater use of home-grown crops, trees, and agricultural wastes to supplement oil as a feedstock for making such everyday items like plastics, paints, and adhesives. Industry wants to win 10% of the market for these chemical feedstocks by 2020 and 50% by 2050. The vision was announced in Long Beach, CA, in late February at the "Commodity Classic," one of the country's premier agricultural conferences, with thousands of farmers and their industrial partners in attendance. At the event a formal compact was signed by private sector leaders and senior officials from the Departments of Energy and Agriculture. The compact pledges a joint public-private sector effort to achieve the vision of a new "carbohydrate economy" through technology roadmaps and joint R&D. (Contact: Doug Faulkner, 202-586-2119)

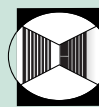


Chemicals: New R&D to Target Four Roadmap Areas

OIT's **Chemical Industry Team** has been working with industry on new R&D roadmaps in high priority technical areas. For 1998, funding will support innovative R&D projects in four areas in which roadmapping efforts are well underway: Computational Fluid Dynamics (see editorial on page 7), Industrial Separation, Bioprocesses, and Catalysis. In addition, roadmapping workshops for Polymer Synthesis, Manufacturing and Recycle; Computational Chemistry; Sensors and Controls; and Chemistry in Alternate Reaction Media are scheduled for this Spring. Experts from the chemical industries, academia, government, and national labs are participating.... The National Academy of Sciences is studying industrial separation processes across several energy intensive industries. OIT chemical team representatives recently joined experts from the steel, forest products, and several other industries in two NAS separations workshops. The workshops addressed key "industry-specific" and "crosscutting" separation technology opportunities in these industries. NAS will soon release a report suggesting an R&D agenda for separation science and technology that would help meet technical, environmental, and economic targets for these industries. (Contact: Doug Faulkner, 202-586-2119)

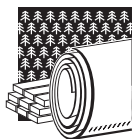


Because U.S. industry meets an estimated 86% of its energy needs through some kind of combustion process, the OIT **Combustion** effort is attempting to address an area with enormous opportunities for energy savings, emissions reduction, and competitive advantage. Following the lead of our industry teams, OIT recently began an industry-led strategic visioning and R&D roadmapping process for combustion, with a workshop held in the Los Angeles area. The workshop brought together manufacturers and users of burners, boilers, process heaters, furnaces, and other industrial heat sources who tried to define the optimum future for the combustion equipment industries and the diverse businesses that depend upon them. (Contact: Gideon Varga, 202-586-0082)



OIT's **Cogeneration** program is working with Malden Mills to demonstrate a cogeneration system featuring ceramic composite combustion liners at the Massachusetts textile plant. Installation is planned for 1999.... Energy Secretary Peña toured a Solar Turbines Corp. facility in San Diego, CA. The visit enabled the Secretary to learn more about the potential of combined heat and power systems to reduce emissions that could impact global climate change.... The Rochelle, IL municipal utility was recently selected to host the demonstration of the first prototype advanced turbine system, a major program milestone slated to begin in 2000. Following up on its successful, record-setting 950-hour demonstration of an industrial turbine with ceramic blades and combustion liner, program partners ARCO Western Energy and Solar Turbines have set a demonstration goal of 4,000 hours of operation. (Contact: Patricia Hoffman, 202-586-6074)

Forest Products: Agenda 2020 to be Featured at TAPPI Conference



Continuing their efforts to publicize the Agenda 2020 Vision to the diverse members of the wood, forest, and paper industries, OIT's **Forest Products Team** and its industry partners will be leading a technical session at the TAPPI/CPA International Environment conference in April. The team will also participate in other upcoming TAPPI events, focusing on different disciplines within the industries to help get the word out about Agenda 2020.... The Team also held a "Poster Session" at the TAPPI meeting where many researchers who had made the "first cut" in the recent R&D solicitation were invited to present their ideas to members of the task groups and fellow researchers. The objective was to foster cross-pollination of ideas. The session was well-received by researchers and industry alike.... Interested parties can now access Agenda 2020 and the six "Research Pathway" technical roadmaps for the Forest Products industry through OIT's website. (Contact: Valri Robinson, 202-586-0937)



OIT leads DOE's energy efficiency cooperation with China

China's industrial sector consumes over two-thirds of the country's commercial energy. The Chinese market for efficiency products and services over the next decade will be very large with many opportunities for U.S. companies. China is eager to learn more about U.S. energy efficiency technologies.

DOE and China are cooperating on several energy efficiency initiatives designed to produce economic and environmental benefits for both countries. In 1995, the U.S. and China formed teams to address opportunities and barriers in ten areas: energy efficiency policy, information exchange and business outreach, district heating, cogeneration, energy-efficient buildings, energy-efficient electric motor systems, industrial process controls, lighting, transformers, and finance. Teams consist of representatives from industry, nonprofit organizations, and national laboratories. OIT coordinates the teams' activities through a U.S.-China steering committee.

Several workshops have been held and more are planned for 1998. Recent activities include a workshop on energy efficiency policy that was held in Beijing in December 1997 to discuss implementation of U.S. energy efficiency laws and policies at the Federal and State levels. Another workshop this Spring on energy efficient electric motor systems will be an initial step in the development of a Motor Challenge program tailored to Chinese needs. (Contact: Peter Salmon-Cox, 202-586-2380)



With industry identifying Laser Ultrasonics Systems (LUS) as a vital technology with potentially broad application throughout OIT's principal customer industries, the **Sensors and Controls** program recently sponsored an LUS strategic visioning workshop in conjunction with OIT's **Steel Team**. Several dozen representatives from industry, DOE's national labs, and academia met at Johns Hopkins University to discuss a path forward for this exciting technology. A report of the workshop has been published, and a solicitation will be announced shortly to fund R&D projects that address identified needs. (Contact: Eric Lightner, 202-586-8130)



The **Continuous Fiber Ceramic Composites (CFCC)** program is working with Alzeta Corp., DuPont/Lanxide, and Ford Motor Co. to demonstrate a prototype CFCC radiant burner screen. The new material offers numerous potential performance benefits over incumbent materials in demanding paint drying applications. Ford will be providing a benefits analysis. (Contact: Debbie Haught, 202-586-2211)



OIT's **Advanced Industrial Materials** program announced that the Metals Processing Center at Oak Ridge National Lab (ORNL) has been designated an official User Center. This opens the door for OIT industry partners to benefit from its state-of-the-art equipment and world class materials and computer modeling expertise. Authorization to use the center can be easily obtained and there is no cost if the research is nonproprietary and the results can be published by ORNL. (Contact: Charlie Sorrell, 202-586-1514)

Quarterly Highlights

"I'm looking forward to working with...our 'Industries of the Future' partners."

Dan Reicher

A central priority of the U.S. Department of Energy is to lead every sector of the American economy in becoming more energy efficient. Our Nation benefits from improved energy security, industrial competitiveness, and a cleaner environment.

Through "Industries of the Future," the Office of Industrial Technologies has been developing and demonstrating innovative and customer-focused methods of enhancing the energy efficiency of the industrial sector. This program recognizes that customer participation leads to the effective and strategic deployment of limited public resources. It provides all stakeholders—from industry players to taxpayers—with a substantially greater return on their investments—a return not only in better R&D, but, ultimately, in a better future.

In my new role at the Department of Energy, I look forward to working closely with Denise Swink and her outstanding team at OIT, as well as with our "Industries of the Future" partners.

Dan Reicher
Assistant Secretary
Energy Efficiency and Renewable Energy

Aluminum: Inert Anode Workshop Held



Because inert anodes offer so much potential for improving the energy efficiency and environmental footprint of aluminum manufacture, members of OIT's **Aluminum Industry Team** joined several aluminum industry representatives at a workshop to develop a technology strategy for inert (nonconsumable) anodes. Experts believe that the technology could reduce aluminum industry energy consumption by up to 25% with a concomitant reduction in greenhouse gas emissions. A report will be available shortly.... The Team participated in The 127th Minerals, Metals and Materials Society Conference in San Antonio in February. In addition to informing show participants on industry energy improvement efforts from its booth, the Team made several technical presentations, including a report on the industry roadmap and progress in its implementation.... The Team organized a seminar featuring a presentation by aluminum industry luminary Dr. Dieter Altenpohl who drew from his new book describing the current state of the industry. Representatives from OIT and other interested Federal agencies discussed such topics as new uses of the light metal in the transportation industry and other applications. (Contact: Hank Kenchington, 202-586-1878)

Metalcasting: R&D Solicitation Schedule Accelerated



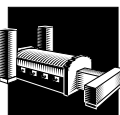
OIT's **Metalcasting Industry Team** and its industry partners are streamlining their R&D solicitation process, planning to have 1999 project recommendations in place by mid-summer. This should enable projects selected for funding to begin work earlier in the fiscal year.... The metalcasting industry technology roadmap—representing the consensus views of wide-ranging interests throughout this very diverse and highly-competitive industry—is now available. It can be reviewed on the Cast Metals Coalition website at <http://www.scra.org/cmc>.... General Motors Corp. will be hosting an event to celebrate the opening of its new lost foam processing facility that will be used to cast engines and other complex metal parts. Long championed by OIT, the lost foam process allows metalcasters to manufacture intricate parts in a single step with minimal need for machining and significant reductions in energy use and scrap. Indeed, a senior executive from the American Foundrymen's Society recently stated that this valuable technology would have "sat on the shelf for 10 more years if not for the efforts of OIT." (Contact: Harvey Wong, 202-586-9235)

Steel: Funding of Roadmap R&D Projects to Commence



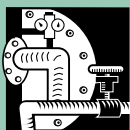
OIT's **Steel Industry Team** recently signed an umbrella agreement with the American Iron and Steel Institute (AISI) to begin funding R&D projects identified as high priority in the steel industry roadmap. Although not finalized at press time, 10 potential new projects have been identified, including "recycling of waste oxides in steelmaking furnaces," "crash worthiness of lightweight steels," "volume stabilization of BOF slag," and "effects of residuals in carbon steels.".... To help streamline partnership efforts, a pre-negotiated agreement has been developed between DOE's national lab system and the steel industry, as represented by AISI. The first application of the agreement, which eschews the need for separate and complicated negotiations with each Lab, will cover a new R&D partnership between AISI and Oak Ridge National Lab.... The Team is sponsoring a Radiation Sensors Workshop in conjunction with the Steel Manufacturers Association. The workshop will investigate possible solutions to the threat of radioactive sources "hidden" among scrap metal shipments, a sensitive issue identified as high priority by the industry. Representatives from the steel industry, detection equipment manufacturers, scrap suppliers, and regulatory agencies will discuss the state-of-the-art in detection technologies and investigate the potential for leveraging existing DOE national lab resources. (Contact: Scott Richlen, 202-586-2078).... OIT **NICE³** program partner Drinkard-Metalux of Charlotte, NC has completed field testing of a process that recovers reusable iron, magnesium, and manganese from steel mill waste dust. The dust has long posed a costly environmental disposal challenge for steel mills, and this process could potentially allow mills to process the material onsite. Drinkard is currently preparing a full-scale demonstration at an existing steel mill. (Contact: Lisa Barnett, 202-586-2212)

Glass: New R&D Projects Follow Roadmap



The Glass Industry Team is pleased to announce the award of \$17.4 million in public and private funds to five glass R&D projects. These projects, which were selected from among 50 proposals received in a competitive solicitation, collectively address the key technology research areas defined in the industry's roadmapping workshop last April. Each of the five projects will receive cost-shared funding from DOE over the next three to five years; industry partners will provide about 40% of project funds over the first two years, increasing their shares as the technologies develop. Two of the selected project teams, led by PPG Industries and Technoglas, will develop better computer models for key processes. Another cooperative partnership led by Air Products and Chemicals, Inc. will perform work on advanced sensors and controls, while a team led by Alfred Univ. will pursue development of high-strength glass. Finally, Ford Motor Co. will lead an effort to develop a user research facility for glass furnace combustion and melting processes. (Contact: Theodore Johnson, 202-586-6937)....

OIT's Advanced Industrial Materials program has released its extensive assessment of the materials needs and opportunities in the glass industry. The assessment will likely be the basis for future OIT-sponsored R&D projects. (Contact: Charlie Sorrell, 202-586-1514)



OIT's Steam Challenge program helps industrial steam generators and users boost productivity with minimal investment and quick payback. The program's first product is "3E+," an insulation thickness software program developed in conjunction with the North American Insulation Manufacturers Association. Available for download free from the worldwide web, the program demonstrates the energy savings, cost reduction, and environmental benefits of insulating steam pipes. It also helps users calculate the optimum thickness of insulation for a specific application. Any organization using a steam system for processing or heating can benefit and is invited to download the free software from <http://pipeinsulation.org>.... Steam Challenge is also publishing an energy efficiency handbook for steam systems. Written in partnership with the Council of Industrial Boiler Owners and the Alliance to Save Energy, the handbook covers such topics as water treatment, combustion, heat recovery, flue gas treatment and more. (Contact: Fred Hart, 202-586-1496)



OIT's **Industrial Assessment Centers (IAC)** were recently honored by the Association of Energy Engineers for "outstanding accomplishments in promoting the practice, principles and procedures of energy engineering." AEE cited the program for its 20 years of industry service and the training of almost 2,000 students.... IAC has expanded internationally, and is providing requested assistance to Ghana and Mexico who have begun their own assessment programs. A presentation was also made to an interested delegation from India. (Contact: Chuck Glaser, 202-586-1298)



The **Inventions and Innovation** program is currently finalizing awards to 22 new grant recipients for the current fiscal year in amounts of up to \$100,000.... An R&D solicitation for new project proposals for fiscal year 1999 will open on May 1, 1998. Applications from independent inventors and very small start-up businesses will be accepted through July 31, 1998. Selections will be announced in October 1998. For further information, visit the OIT home page at www.oit.doe.gov, or call OIT's Resource Center at 202-586-2090. (Contact: Sandy Glatt, 202-586-3897)



Motor Challenge recently formed a partnership with the Technical Association of the Pulp and Paper Industry (TAPPI, a leading Forest Products industry trade association). The partnership will promote the dissemination of MC program materials to TAPPI members and investigate the need for new tailored information products as well. TAPPI has formed a Motor System Management subcommittee and is making OIT's energy-saving "Motor Master+" software (see page 1 feature story) available to every pulp and paper mill in the country.... The new Compressed Air Challenge held a kick-off event in January. Studies show that optimization of these ubiquitous systems can generate process improvements of up to 50%, a benefit OIT hopes to communicate to chemical, glass, pulp and paper, and other manufacturers. (Contact: Paul Scheihing, 202-586-7234)



OIT's **NICE³** program recently announced the dates for its 1999 demonstration project solicitation. The solicitation will open June 15 and close October 20, 1998 (state submission deadlines may differ). Selections will be made by January 15, 1999 and announced by the end of February, 1999. (Contact: Lisa Barnett, 202-586-2212)

Information Corner

Calendar

Motor Challenge Adjustable Speed Drive Training Workshop
April 1, Shelton, CT, 800-862-2086

Motor Challenge Adjustable Speed Drive Training Workshop
April 6, Cleveland, OH, 800-862-2086

Motor Challenge Performance Optimization Workshop (for
water and wastewater plants) April 7, White Plains, NY
800-862-2086

Motor Challenge Adjustable Speed Drive Training Workshop
April 14, Atlanta, GA, 800-862-2086

Motor Challenge Video Conference, May 19, 12-2pm ET, at
many dialing sites across U.S., call 800-862-2086 or access
website

Pennsylvania NICE³ Event, tentatively scheduled to corre-
spond with Motor Challenge Video Conference, May 19, at
dialing site

Advanced Industrial Materials Annual Program Review, June
24-26, Jackson Hole, WY

Continuous Fiber Ceramic Composite program and National
Assoc. of Corrosion Engineers joint meeting, June 29-July 1,
Houston, TX



OIT "Customer Day" and Survey Provide Feedback, Suggest Improvement Areas

OIT recently completed two key customer-focused activities. In December, OIT completed a survey of 40 key partners and customers to obtain their perspectives on our performance. In January, OIT held its second "Customer Day," an event attended by about 150. Feedback from customer day and the survey has helped identify areas in which OIT excels, as well as those in need of improvement. Some of the key findings from the two activities include the following:

- A total of 58% of the survey respondents felt that OIT performs better/much better than other government agencies, while only 9% feel that OIT performs worse.
- Overall, our customers have a high opinion of OIT staff, based on their dealings with them.
- Among the areas our customers would like to see improved are streamlined solicitations, more responsive project management and execution, and more industrial experience among OIT staff.

For a more detailed summary of survey results, contact Lou Sousa at 202-586-9236.



New Publications, Databases, Tools

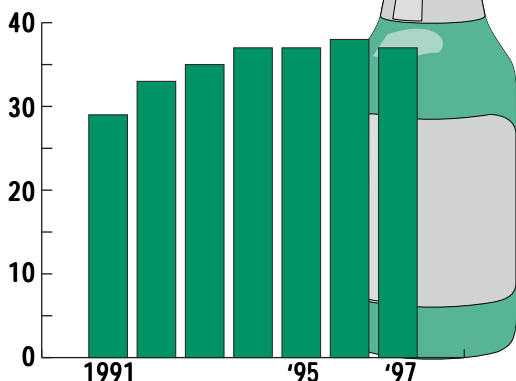
Title	Area	Availability
Glass Roadmap Workshop Report	Glass	202-586-2090 or www.oit.doe.gov
Laser-Based Ultrasound Workshop Report	Sensors & Controls	202-586-2090
Steam Energy Efficiency Handbook	Steam	202-586-2090
Assessments of Material Needs and Opportunities of Glass	Glass, Adv. Industrial Materials	202-586-2090
Industrial Projects Locator	R&D General	www.oit.doe.gov or 800-830-2258
Industrial Assessment Center Database	IAC	732-445-5540
Motor Master +	Motor Challenge	800-862-2086
U.S. Industrial Electric Motor System Market Assessment - Interim Report	Motor Challenge	800-862-2086



Recycling

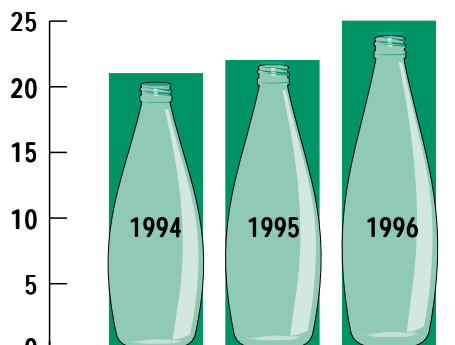
(As a percent of production)

Glass Packaging



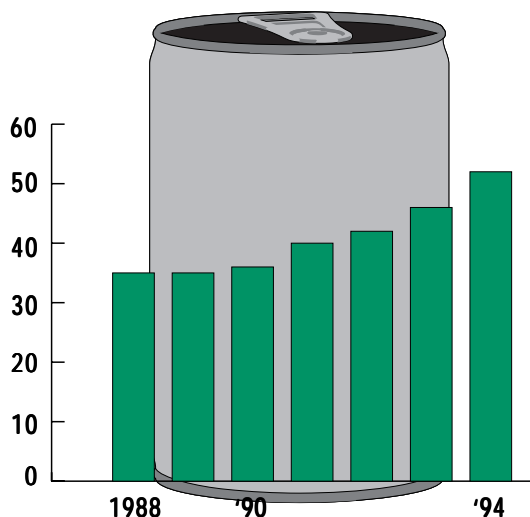
Source: Glass Packaging Institute

Plastic Bottles



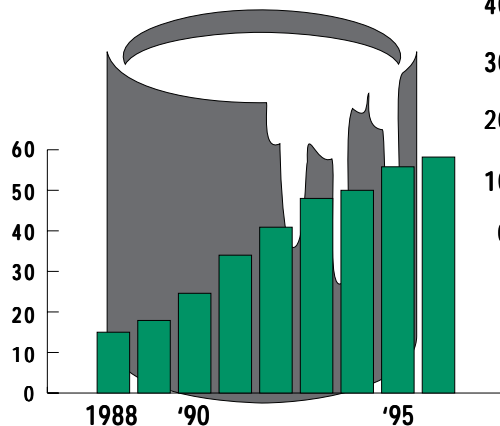
Source: American Plastics Council

Aluminum



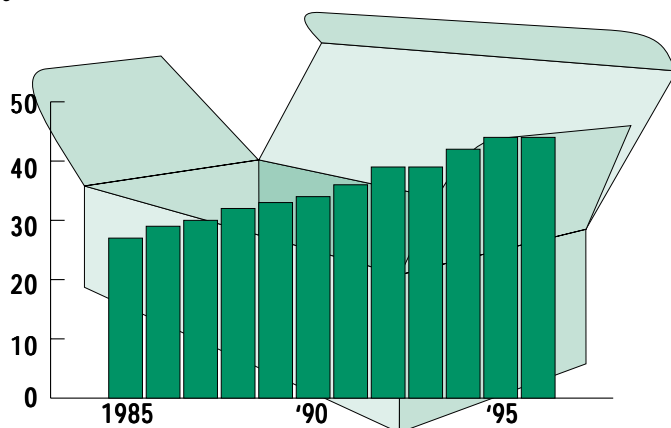
Source: Aluminum Review

Steel Cans



Source: Steel Recycling Institute

Paper Recovery Rate



Source: American Forest & Paper Association

Computational Fluid Dynamics: The First of Many Chemical Industry Roadmaps

by Brian Volintine,
OIT Chemical Industry Team

The wing and the tail structures of the last jet airplane you flew on were designed with the aid of computational fluid dynamics (CFD). In fact, virtually all of today's aircraft, autos and boats are now designed using CFD, which helps reduce the weight and improve the stress tolerance of these structures.

Industries such as chemicals are also interested in applying CFD to their manufacturing processes. CFD enables the calculation of important properties of flowing fluids—such as concentrations and flow rates—that could enhance productivity and yields in these industries.

Industry is especially interested in calculations involving multi-phase flows of matter involving mixtures of solid, liquid, and gas particles. In most cases, calculations of multiphase flows are far more complex than the single-phase calculations typical of aerospace or marine applications. Today's multiphase flow calculations are enabled by advances in supercomputing that have occurred over the last decade at facilities such as DOE's national labs.

Thus, in response to needs identified in the Chemical Industry Vision 2020, a multiphase CFD workshop was held and a draft technology roadmap, the chemical industry's first, is in final review. Industry partnerships with the Defense Department and NASA helped promote widespread application of CFD in the auto and aerospace industries. We look forward to similar success in making CFD a viable technology for tomorrow's chemical industry.

(continued from page 1)

perform their own audits. The IAC database is maintained by Rutgers University and can be accessed through the worldwide web at http://128.6.70.23/text_docs/dbase_text.html. For more information, call the Rutgers system administrator at 732-445-5540.

New tool can help optimize motor system performance

If you use electric motors in any phase of your operation, you know that they can account for a substantial portion of your total annual energy bill. A new OIT information product—**MotorMaster+ v. 2.0 software**—will now help you optimize the performance of your electric motor systems. The software aids in the selection of motors and provides easy-to-use systems for motor inventory tracking, maintenance logging, energy accounting, conservation analysis, environmental reporting, and more.

Motor Challenge is also publishing the aggregate results of more than 250 plant audits. The goal is to present the “top five actions” that plants can take to significantly lower their motor systems electricity use. The **U.S. Industrial Electric Motor System Market Assessment—Interim Report** quantifies the energy use and substantial cost saving opportunities for the 10 largest motor-using industries and is now available. The final report, with complete analysis of the data and suggested actions, will be available later this year. For information on the reports or MotorMaster+ software, call 800-862-2086.

Energy and Environmental Profiles are part of a new series of OIT reports that provide benchmark energy and environmental data for OIT’s principal customer industries. The comprehensive reports are user-friendly, yet technically credible. They provide what *OIT Times* editor Lou Sousa calls “a valuable reference for a broad audience of users from plant operators and industry executives to university professors, industry analysts, and public policy makers.” Reports covering the steel and aluminum industries are already available while new reports for the chemical, petroleum refining, and metalcasting industries should be published shortly. Call OIT Resource Center Manager Marilyn Burgess at 202-586-2090 for more information.

Potential cogenerators can gain new insight

For power producers and others investigating the potentially enormous benefits of cogeneration, OIT is making available **Cogeneration Capacity Studies** developed in conjunction with Onsite Energy Corporation. The studies present a database of plant power requirements and analyze cogeneration potential in each industry. “They also include results of a field survey, insights from cogeneration implementors, discussions of the factors that impact power generation decisions and other “inside” information that is often difficult to find,” according to OIT program manager Pat Hoffman. Reports are currently available for the food (agricultural) and chemical industries, as well as a general overview of the six OIT “Industries of the Future.” More detailed reports on the other individual IOF industries are in progress. Copies are available from Onsite Energy’s Keith Davidson at 760-931-2400, or OIT’s Marilyn Burgess.

OIT’s **Materials Needs in Basic Industries** reports provide unique overviews of the state-of-the-art in advanced materials. These valuable reports “highlight materials properties such as corrosion resistance, wear resistance, strength-to-weight ratios and more,” said Charlie Sorrell, OIT program manager. They also discuss current and projected applications of advanced materials in a wide array of industrial processes cutting across the Industries of the Future. Reports covering the pulp and paper and glass industries are available and a new one on the chemical industry is expected soon. Call Marilyn Burgess for copies.

Last, but not least, the **OIT Website** provides an enormous amount of information on current programs, procurement and funding details, industry news, state programs, and much more. Bucking the trend of the web, the award-winning site features an easy-to-use, no-nonsense interface for busy industrial customers. If you haven’t already, visit the site at www.oit.doe.gov and use it to access many of the products described above. You’ll find that many of these products are valuable tools for improving your energy and materials efficiency and competitive position.

Office of Industrial Technologies
Energy Efficiency and
Renewable Energy
U.S. Department of Energy
Washington, D.C. 20585

